

PONY

ICT

By

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5th
Primary
First Term

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Introduction

We are delighted to introduce our comprehensive educational series **"Pony" in ICT**. This book is designed to provide an interesting and attractive style that will capture your attention and keep you engaged throughout your learning journey.

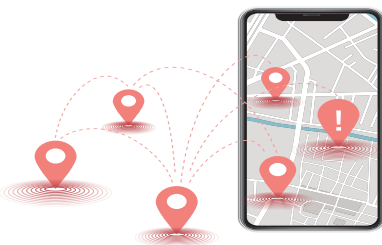
We understand that learning can be challenging, which is why we have made every effort to provide clear and concise explanations of the topics covered in this book. In addition, the book includes a large number of comprehensive exercises designed to help reinforce your understanding of the concepts presented.

We have also taken great care to provide explanatory information for some of the more ambiguous points in the subject matter. We understand that some concepts may be difficult to grasp, and we have made every effort to provide clear explanations and examples to help you understand these points.

Overall, we hope that this book will help you develop a strong foundation in **ICT** and explore its exciting world.

We hope that you find this book informative, engaging, and enjoyable to read.

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متواجدون في كافة محافظات جمهورية مصر العربية



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صفحة الأستاذ - PONY



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تابعونا على قناتنا
التعليمية الخاصة



لا يجوز أبداً إعادة إنتاج أي جزء من هذا العمل ولا حفظه بأي صورة من صور
الحفظ والتخزين ولا نقله بأي شكل أو أي وسيلة سواء أكانت ميكانيكية
أو إلكترونية أو نسخاً أو تسجيلاً دون إذن كتابي سابق من الناشر.

كل الحقوق
محفوظة

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The Role of The Technology in Our Life



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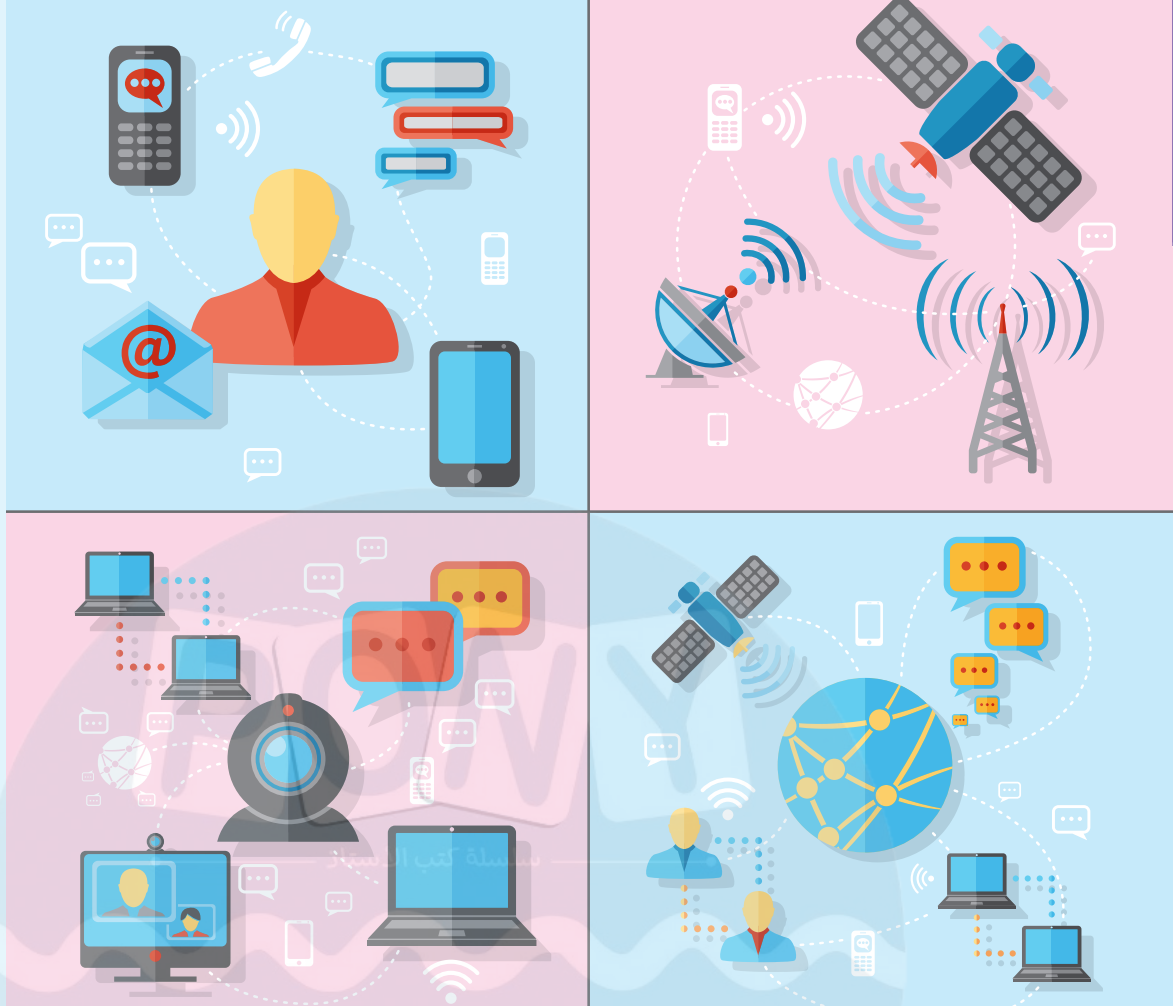
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Role of Technology (ICT) in Our Lives



Unit I The Role of The Technology in Our Life

Lesson 1 Accessories Devices of the Computer

Lesson 2 networks and Their Types

Lesson 3 Smart communication Systems

Lesson 4 Internet Connection Problems and How to Solve them

Lesson 5 Digital Files and How to Handle Them

Lesson 6 Information Sharing: When, Where, and How?

» In the previous grade, we studied the computer **hardware**, such as:

- ① Input devices ② output devices

» Also we studied Computer **Software** such as:

- ① Operating systems (windows)
① Office programs (Word, Excel, PowerPoint)

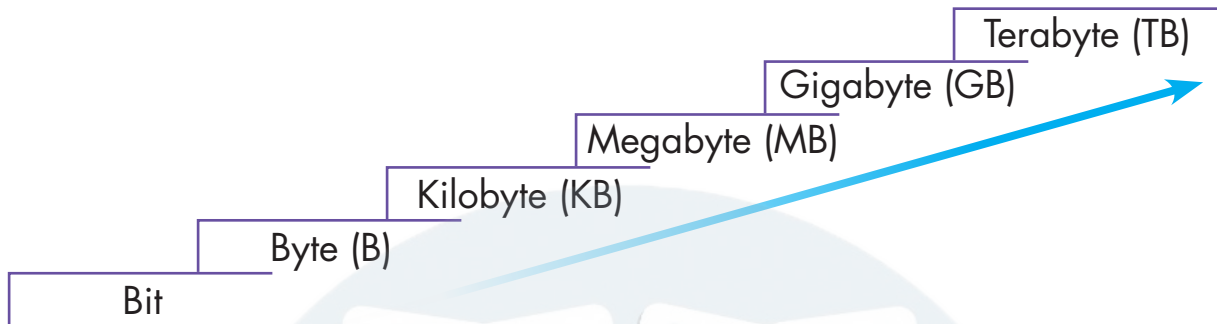
» In this lesson, We will study computer accessories

« درسنا في الصف الرابع الابتدائي أجهزة الحاسب الآلي ومكوناتها المادية (وحدات الادخال ووحدات الاخراج) بالإضافة إلى البرامج المكتبية وأنظمة التشغيل، وسوف نتناول في هذا الدرس الأجهزة الملحقة المتصلة بجهاز الحاسب الآلي.

1 Flash Memory ذاكرة الفلاش	• Like a USB or SSD • It's very fast because it doesn't have any moving parts. • مثل USB أو SSD فهي سريعة جدًا لأنها لا تحتوي على أجزاء متحركة.	
2 External Hard Drive محرك القرص الصلب الخارجي	• Like HDD, but much faster. • It connects directly to the computer parts. • مثل محرك الأقراص الثابتة، ولكن يعمل بشكل أسرع لأنه يتصل مباشرة بمنافذ الحاسب الآلي.	
3 Ethernet Cable سلك إيثرنت	• A cable that connects a computer to a router. • Ethernet cable is connected to ethernet port. • Note: Ethernet is more <u>stable</u> and <u>faster</u> than Wi-Fi • سلك يربط جهاز الكمبيوتر أو الكمبيوتر المحمول بجهاز التوجيه (الراوتر).	
4 Router	• A device that connects multiple devices to the internet via ethernet or Wi-Fi. • جهاز يربط عدة أجهزة بالإنترنت بواسطة الواي فاي أو الإيثرنت.	
5 HDMI (high-definition multimedia interface)	• A cable that transmits audio and video from and to devices. • سلك ينقل الصوت والصورة من الأجهزة وإليها.	

Units of Measurement

Unit 1



1 Bit	The smallest unit of data	0 or 1
2 Byte	1 Byte = 8 bits = 1 character	"Cat" = 3 characters = 3 Bytes
3 Kilobyte (KB)	1 KB = 1024 B	
4 Megabyte (MB)	1 MB = 1024 KB	
5 Gigabyte (GB)	1 GB = 1024 MB	
6 Terabyte (TB)	1 TB = 1024 GB	

Megabits per second - (Mbps)

» Measures the speed of a network or internet connection.



» وحدة قياس تُستخدم لقياس سرعة شبكة الإنترنت.

GigaHertz (GHz)

» Measures the number of cycles your CPU carries out per second.

» تُستخدم لقياس عدد الدورات التي تنفذها وحدة المعالجة المركزية في الثانية.



Potential Computer Problems and Solutions

Problem	Reason	Solution
1 Trouble processing large files (Like a big PowerPoint presentation) مشكلة في معالجة الملفات الكبيرة.	- Not enough graphics storage - عدم وجود مساحة تخزين كافية للرسومات.	- Shut down some programs to free RAM - أغلق بعض البرامج لتحرير جزء من الذاكرة العشوائية
2 Not able to store files. عدم القدرة على تخزين الملفات.	- Not enough space - المساحة غير كافية.	- Move old files to an external drive. - انقل الملفات القديمة إلى محرك أقراص خارجي.
3 A poor video-conference connection اتصال ضعيف بالشبكة أثناء مؤتمر فيديو.	- Slow wireless internet connection - اتصال لاسلكي بالإنترنت ضعيف وبطيء.	- Try an ethernet connection. - جرب شبكة الإنترنت السلكية السريعة.
4 The home internet connection not working. الإنترنت المنزلي لا يعمل.	- Connection interrupted - انقطاع الاتصال.	- Use ethernet or contact ISP (Internet Service Provider). - استخدم الإنترنت أو اتصل بمزود خدمة الإنترنت.

أهم الكلمات والمصطلحات

RAM	ذاكرة الوصول العشوائي	Ethernet port	منفذ الإنترنت
External hard drive	محرك الأقراص الثابتة	Graphs	الرسومات البيانية
Connection interrupted	انقطاع الاتصال	Processing	معالجة
Ethernet cable	سلك إنترنت	Router	جهاز توجيه



Exercises

on Lesson

1

1 Choose the correct answer:

- 1  is considered as the smallest unit for data.
a. Bit b. Byte c. MB d. TB
(شرق مدينة نصر 2025) (الإسكندرية - شرق 2025) (القاهرة - المستقبل 2025)
- 2 Ethernet is than Wi-Fi.
a. faster b. more stable c. slower d. both a and b
- 3  A drive is like a hard disk drive, but it runs faster:
a. screen b. External hard disk
c. Keyboard d. Ethernet cable (أسيوط 2025)
- 4  is a device that connects a computer to the internet.
a. A router b. Flash memory
c. Microphone d. Gigahertz
(القاهرة - عين شمس 2025) (القاهرة - المستقبل 2025) (الغردقة 2025)
- 5  is a cable that connect computer to the router.
a. Ethernet b. Wi-Fi c. HDMI d. ISP
(القاهرة - الشروق 2025) (شرق مدينة نصر 2025) (القاهرة - المستقبل 2025)
- 6 Kilobyte = Byte
a. 2024 b. 1000 c. 1024 d. 2024
(الجيزة - العمرانية 2025)
- 7 The is a cable that transfer audio and video to and from devices.
a. ethernet cable b. HDD c. router d. HDMI
(القاهرة - الزيتون 2024) (الجيزة - كرداسة 2024) (الجيزة - 6 أكتوبر 2024)
- 8 is abbreviation of Internet Service Provider. (الإسماعيلية 2025)
a. SPI b. PIS c. SIP d. ISP
- 9  A unit of measurement used to measure network speed or internet connection speed is
a. Mbps b. Gigabytes c. Bits d. None of them
(الإسكندرية - الجمرک 2025)

- 10  measures the number of cycles your CPU carries out per second. (الإعبور 2025)
 a. Bit b. Gb c. GHZ d. Mbps
- 11 The word "Cat" has three letters and would need (الإسكندرية - وسط 2025)
 a. 5 bits b. 5 Kbytes c. 3 bytes d. 6 bytes
- 12 The reason your home internet connection is not working is because
 a. there is no enough space b. there is no enough graphic storage
 c. the connection was interrupted d. none of them (الإسكندرية - شرق 2023)
- 13 Byte is equal to bit(s).
 a. 1024 b. 1 c. 8 d. 5
- 14 One of the measurement units is the megabyte (Mb), which is equal to
 a. 1024 bytes b. 1024 kilobytes
 c. 1024 megabytes d. 1024 gigabyte (الإسكندرية - المنتزه ثانٍ 2023)
- 15  To solve the problem of inability to store files on you computer, you can (أبناؤنا في الخارج 2025)
 a. move old files to an external drive
 b. move your computer to another place
 c. connect your computer with a router
 d. connect your computer with a scanner
- 16 If your home internet connections is not working, you should
 a. Shut down some programs.
 b. Move old files to an external drive.
 c. Use ethernet or contact ISP. d. Try processing smaller files
- 17 Which one represents the correct arrangement of these measuring units of a computer (from the biggest to the smallest)?
 a. Terabyte - megabyte - gigabyte b. Byte - megabyte
 c. Megabyte - kilobyte – byte d. Gigabyte- terabyte- megabyte

2 Put (✓) or (✗):

- 1 A bit is the smallest unit of data. ()
(الإسكندرية - وسط 2025) (الغربية - طنطا 2025)
- 2 GHz (Gigahertz) is a unit for measuring network speed. ()
(القاهرة - الشروق 2024)
- 3 Ethernet is a cable that connect computer to the router. ()
(الإسكندرية - شرق 2025)
- 4 Kilobyte (KB)= 1024 bytes. ()
(الفيوم - شرق 2023)
- 5 The word 'ICT' takes 3 bits to store in a computer. ()
- 6 The ethernet is more stable and faster than Wi-Fi. ()
(الجيزة - جنوب 2024)
- 7 To solve the problem of space, you must shut down your computer. ()
(الإسكندرية - وسط 2025)
- 8 The router is used to connect the computer to the internet. ()
(الجيزة - العمرانية 2025)
- 9 Byte used to measure network speed or internet connection. ()
(القاهرة - عين شمس 2025)
- 10 It is possible to connect to the internet without an Etherent cable. ()
(الجيزة - العمرانية 2025)
- 11 Gigabyte (GB) = 1024 byte. ()
(الفيوم - شرق 2024)
- 12 External hard drive, like the HDD but much faster. ()
(القاهرة - مصر القديمة 2024)
- 13 If you are not able to store files, you should try an etherent connection. ()
(الإسكندرية - العجمي 2025)
- 14 Megabyte (Mb) measures the speed of a network. ()
(بندر دمنهور 2024)
- 15 If the interent is not working, you can contact customer service. ()
(الجيزة - العمرانية 2025)

3 Complete the missing parts using the words between the brackets:

(Mbps - Ethernet cable - Gigahertz - A router)

1 used to measure the number of cycles of the CPU per second. (أشمون 2025)

2 connects your computer or laptop to the router.

3 is a device that connects a computer to the internet.

(بورسعيد 2025) (الدقهلية 2025)

4 is the measuring unit of the speed of network. (سوهاج 2025)

4 Choose from column (A) what suits it in column (B):

A

Column (A)	Column (B)
1 Byte	a. 1,024 kilobytes
2 Megabyte	b. 1,024 bytes
3 Gigabyte	c. 1,024 gigabytes
4 Kilobyte	d. 1,024 megabytes
	e. 8 bits

1 2 3 4

B

Column (A)	Column (B)
1 A poor video-conference connection	a. Shut down some programs.
2 Not able to store files	b. Try an ethernet connection
3 Not enough graphics storage	c. Move old files to an external drive.

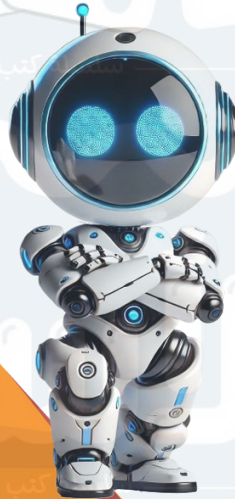
1 2 3

Play with PONY



Re- arrange the units of measurement from largest to smallest to help thr Robot get the treasure

MB -TB -Bit - KB - byte - GB



Networks

They are groups of people, or devices, that are connected to each other for a common purpose.

تُمثِّل مجموعات من الأشخاص أو الأجهزة المرتبطة ببعضها لهدف مشترك.



Types of Computer Networks

1 Local Area Network (LAN)

- » It Connects computers inside a house or a small office.
- » It Can also connect printers and router.

« تربط أجهزة الحاسب داخل منزل أو مكتب صغير.

« كما يمكنها ربط الطابعات وأجهزة التوجيه (الراوتر).



2 Internet

- » The internet is a global network that connects millions of computers from all around the world.

« الإنترنت هو شبكة تربط أجهزة الكمبيوتر من جميع أنحاء العالم.

What do we need to connect a computer to the internet?

- We need a **gateway**, such as a **router**.

Router

It connects your computer to an ISP (Internet Service Provider).

يقوم بربط جهاز الكمبيوتر الخاص بك بمزود خدمة الإنترنت.

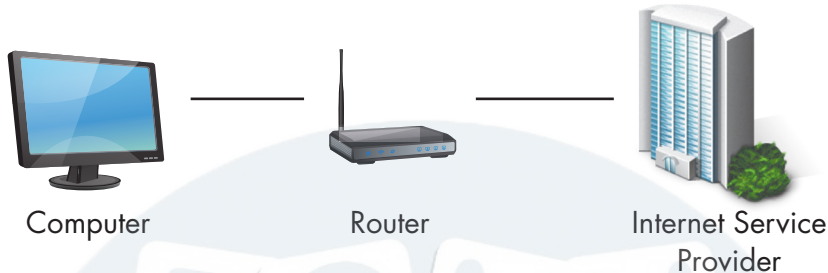


The Role of The Technology in Our Life

The ISP

(Internet Service Provider) is a company that provides internet service to customers.

(مزود خدمة الإنترنت) هو شركة تقدم خدمة الإنترنت للعملاء.



» **Note:** The internet contains a vast amount of information, similar to a huge library with books, images, videos, and websites.



» **Example of the a useful website:** The Egyptian Knowledge Bank (EKB)

« يحتوي الإنترنت على كم هائل من المعلومات، أشبه بمكتبة ضخمة تضم كتبًا وصورًا وفيدويوهات ومواقع إلكترونية. ومن الأمثلة على المواقع المفيدة: بنك المعرفة المصري.

Open Network

- It is opened and accessible to all.

Example: ① Internet ② World Wide Web (WWW)



هي شبكة مفتوحة ومتاحة للجميع مثل ① شبكة الإنترنت ② الشبكة العنكبوتية العالمية.

Closed Network

- It is a private network

Example: ① The intranet ② The school computer lab



② مختبر الحاسوب بالمدرسة

هي شبكات خاصة مثل ① الانترانت

Test Yourself**Complete the following:**

- 1 To be connected to the internet, you need a device called
- 2 The internet is network, but intranet is network.
- 3 WWW is a network.
- 4 is the company that provide you with internet.

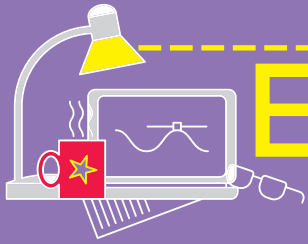
أهم الكلمات والمصطلحات			
Network	شبكة	Egyptian Knowledge Bank	بنك المعرفة المصري
Purpose	هدف - غرض	Accessible	متاح
Connection	الاتصال	Organization	منظمة
Gateway	بوابة (مدخل)	Lab	معمل
Internet Service Provider	مزود خدمة الإنترنت	World Wide Web	الشبكة العنكبوتية العالمية
Navigate	التنقل	Popular	مشهور

في

اللغة العربية

للمف الخامس الابتدائي

احرص على اقتناء كتاب الأستاذ



Exercises

on Lesson

2

1 Choose the correct answer:

- 1 are groups of people or devices that are connected to each other. (أشمون 2025)
a. Computers b. Information
c. Gateways d. Networks
- 2 is an example of useful website.
a. LAN b. EKB c. Internet d. all of them
- 3 To connect your computer to the internet, you need a
a. network b. gateway
c. flash memory d. none of them
(الجيزة - العمرانية 2023) (الإسكندرية - شرق 2023)
- 4 The consists of a computer connected to another device such as a printer or router.
a. LAN b. ethernet c. WWW d. internet
(شبين الكوم 2025)
- 5 The router is considered as a/an (المنوفية - السادات 2023) (الدقهلية 2023)
a. browser b. antivirus c. gateway d. cable
- 6  A/An is a device that connects your computer to an ISP.
a. Bluetooth b. router c. ethernet port d. HDMI
- 7  A network that connects computers and their users worldwide is
a. local b. internet c. closed d. None of them
(الإسكندرية - الجمرک 2025)
- 8 is a company that provides internet service to customers.
a. An ISP b. A router c. WWW d. A gateway

- 9 Internet is a/an network.
 a. open b. closed c. both a and b d. none of them
- 10 is/are example(s) on open network.
 a. intranet b. internet c. WWW d. both b and c
- 11  The school computer lab network is a computer (أسيوط 2025)
 a. open network b. closed network
 c. WWW d. Intranet
- 12  When you connect a computer to another in the same place, so you have a (أبناؤنا في الخارج 2025) (القاهرة - المستقبل 2025)
 a. scanner b. LAN c. CPU d. ISP
- 13 networks share public information. (الجيزة - جنوب 2024)
 a. Open b. Closed c. School d. None of them

2 Put (✓) or (X):

- 1 Internet is a network that connects computers from all around the world. (الإسكندرية - وسط 2024) ()
- 2 A LAN is a wide area network. (الفيوم - إدارة شرق 2023) ()
- 3 Connecting a computer to another computer in the same place is considered a local area network (LAN). (الإسكندرية - المنزه أول 2025) ()
- 4 ISP made up of WebPages that people can navigate. (الإسكندرية - العجمي 2025) ()
- 5 EKB is a useful source of knowledge. (القاهرة - مصر القديمة 2024) ()
- 6 To connect a computer to the internet, you only need a router (GETAWAY). (القاهرة - المعادي 2024) ()
- 7 WWW is a short form for the World Wide Web. (الجيزة - العمرانية 2023) ()
- 8 A closed network, such as one in a computer lab. (القاهرة - عين شمس 2025) ()
- 9 A school's computer lab could have its own closed network. (الجيزة - أبو النمرس 2023) (أسيوط 2024) ()

3 Complete the missing parts using the words between the brackets:

(A router – An ISP – A LAN – closed)

- 1 enables you to connect your laptop to the internet.
- 2 consists of one computer connected to a printer or a router.
- 3 is the internet service provided by Egyptian companies to citizens.
- 4 Your school's computer lab is Network. (الإسكندرية - وسط 2025)

4 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 A router	a. is an abbreviation of world wide web
2 The internet	b. is a computer network between some people in the same work.
3 The intranet	c. connects your computer to an ISP.
4 WWW	d. is a computer network between people all over the world.

- 1 2 3 4

Play with PONY



Help Robot know about network:

It connects computers inside a house or a small office, and connects printers and routers

.....

They are groups of people or devices, that are connected to each other for a common purpose.

.....

It is a global network that connects millions of computers from all around the world

.....



Test Yourself

on

Lessons
1&2

1 Put (✓) or (X):

- 1 Internet speed cannot be measured. (الإسماعيلية - إدارة شمال 2024) ()
- 2 Internet and WWW are examples of closed networks. ()
- 3 One terabyte = 1024 Mbyte (الجيزة - 6 أكتوبر 2024) ()
- 4 LAN may be consist of a computer connected a printer. ()
- 5 A router is a device that connects a computer to the internet. ()
(الجيزة - العمرانية 2024)
- 6 The intranet is a public and open network. ()
- 7 An external hard disk is faster than a HDD ()
- 8 A USB cable connects computers to a router. (الإسكندرية - الجمرک 2024) ()

2 Choose the correct answer:

- 1 8 bits equal one
a. Kilobyte b. Megabyte c. Byte d. Terabyte
- 2 A router works as a
a. printer b. gateway c. scanner d. hard disk
- 3 The is like an hard disk drive but much faster. (القاهرة - المستقبل 2024)
a. DVD b. cable c. external hard drive d. HDMI
- 4 A common solution for poor video conference quality is to use a
a. wireless b. Bluetooth c. ethernet d. Wi-Fi
- 5 Gigabyte equals (دمياط 2024)
a. 1024 kilobytes b. 1024 bits c. 1024 megabytes d. 1024 bytes
- 6 The connects a computer to the internet via Wi-Fi or ethernet. (بندر دمنهور 2024)
a. modem b. router c. switch d. CPU
- 7 One of the possible reasons for a home internet outage
a. flash memory is full b. no storage space
c. network connection interruption d. browsers (الإسماعيلية 2024)